

# Bradley Kohler

MECHATRONICS ENGINEER · 16 MONTHS OF CO-OP EXPERIENCE

Waterloo, ON, Canada

✉ studentbrad.github@gmail.com | 📧 studentbrad | 🌐 studentbrad

## Skills

My skills include but are not limited to:

- BASH, C/C++, Python and Java
- Microcontroller and Microprocessor firmware (MATLAB/Simulink, Labview, ARM Mbed, STM32, Nordic, Qualcomm Snapdragon)
- Embedded Operating Systems (Linux, mbedOS, ChibiOS, FreeRTOS)
- PCB hardware design (Verilog HDL, NI Multisim, Eagle)
- Systems design (Maplesim, AutoCAD, SolidWorks)
- Mathematics (Maple18, NumPy, Eigen, MATLAB)

## Work Experience

### Northern Digital Inc.

Waterloo, Ontario

ADVANCED RESEARCHER & FIRMWARE DEVELOPER

May 2018 - Sept. 2019

- Demonstrated problem-solving skills by implementing data fusion algorithms on camera tracking 3D guidance systems.
- Demonstrated creativity and self-confidence by authoring new data fusion algorithms for 3D guidance systems achieving NASA level TRL4.
- Demonstrated initiative by developing Python libraries for sensor fusion visualization and statistical analysis.
- Demonstrated teamwork skills by working with coworkers to develop a C/C++ simulator for 3D guidance inertial data.
- Demonstrated adaptability by reworking/porting our platform specific C/C++ libraries to other ARM platforms.

### McMaster University

Hamilton, Ontario

ADVANCED RESEARCHER & TEACHING ASSISTANT

May 2015 - Dec. 2015 & May 2017 - Sept.

2017

- Demonstrated computer skills by developing embedded C software for safety critical systems.
- Demonstrated good organization skills by creating software documentation for system design.
- Took on addition responsibility by preparing lessons for students and presentations for laboratories.
- Friendly/outgoing to students especially when addressing their questions/concerns.

### Emnor Mechanical Inc.

Hamilton, Ontario

SOFTWARE DEVELOPER & MECHANICAL REPAIRMAN & SHOP EMPLOYEE

May 2015 - Sept. 2015 & May 2016 - Sept.

2016

- Demonstrated good organization skills by developing an inventory management software for our warehouse.
- Demonstrated good attention to detail by managing company payroll, invoices and purchase orders.
- Demonstrated technology skills by reverse engineering damaged parts and producing CAD drawings using the Faro Arm.
- Demonstrated a strong work ethic by disassembling, repairing and reassembling centrifugal pumps.

## Education

### McMaster University

Hamilton, Ontario

MECHATRONICS ENGINEERING CO-OP

Sept. 2014 - Expected Graduation April

2020

- McMaster Cumulative Grade Point Average 3.5/4.0
- McMaster Engineering Co-op Student of the Year Nominee

## Projects

### McMaster Canada-Israel Startup Competition

Hamilton, Ontario

STARTUP COMPANY FOUNDER

June, 2019

- Winner of the 2019 McMaster Canada-Israel Startup Competition.
- Traveled to Tel Aviv, Israel to present technologies to companies, universities and nursing homes.
- Developed numerous technologies to accurately automate patient fluid intake.

### JobFunnel

Waterloo, Ontario

DEVELOPER

June - Sept., 2019

- Developed webcrawling application to help find and organize job postings.
- Developing pre-trained neural network to organize job posting based on cosine similarity.